**Plato's Cosmology: Conflicting Theories**

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# Plato's Cosmology: Conflicting Theories

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## Introduction

Two differing interpretations of Plato's cosmology exist, from different periods in history. The interpretation that is prevalent today differs from the interpretation that was widely accepted in antiquity.

Today, the prevailing view regarding Plato's cosmology looks to Cornford (1937), who relied on Plato's *Timaeus* for his interpretation. In Plato's account, the Demiurge fashions two circles that intersect each other at opposite locations.

> 'Next, he sliced this entire compound in two along its length, joined the two halves together center to center like an X, and bent them in a circle, attaching each half to itself end to end…' (*Timaeus*, 36c tr. Zeyl)[1]

In the modern explanation, these two cosmic circles stand for the sidereal (celestial) equator and the Zodiac. Here, the celestial equator represents the motion of the Same (the fixed stars), while the motion of the Different is the ecliptic, the path of the classical Planets that travel along the constellations of the Zodiac. This opinion would be voiced by Jowett (1892), Bury (1929), Cornford (1937) and more recently by Vlastos (1975).

But this was not how Plato's cosmos had been viewed by most people in antiquity. For centuries, Platonist tradition saw the Milky Way as the heavenly abode of just souls. At the intersections of the Milky Way and the Zodiac (path of the Planets) stood the gates of the afterlife according to Macrobius, who commented on Cicero's 'Dream of Scipio' which was patterned on Plato's 'Vision of Er,' a chain that spanned seven hundred years. Plato's pupil, Heraclides of Pontus, emulated his master with the vision of Empedotimus that reportedly pointed to the Milky Way as the 'Underworld in the Sky.'

Both the modern view and the ancient Platonist viewpoint accept the path of the Planets (ecliptic/Zodiac) as Plato's circle of the Different. Where they disagree is in the interpretation of the other celestial circle. The modern view sees it as the celestial equator, while the Platonist tradition saw it as the Milky Way.

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[1] Plato, tr. Zeyl (2000) 21

Can a coherent historical narrative be postulated that might shed light on the diverging views of Plato's cosmology?

## Celestial Equator

Cornford's book on Plato's cosmology is considered the standard text for explaining Plato's universe and, right in the title, Cornford lays claim to Plato's *Timaeus* as the source for his interpretation: *Plato's Cosmology: The Timaeus of Plato translated*.

The limits of Cornford's investigation of Plato's cosmos have been set: *Timaeus* and nothing else. Cornford's explanation of the creation process is as follows:

> Timaeus now speaks as if the Demiurge has made a long band of soul-stuff… This he proceeds to slit lengthwise into two strips, which he puts together by their middles and bends round into two circles or rings, corresponding to the sidereal equator and the Zodiac.[2]

The Zodiac is not mentioned by Plato, but it is composed of the constellations delineated by the course of the Planets along the ecliptic. The sidereal (or celestial) equator is not discussed by Plato.

The celestial equator as Plato's other cosmic circle had been proposed by Jowett in the 1890's.

> The universe revolves around a centre… but the orbits of the fixed stars take a different direction from those of the planets… the first describing the path of the equator, the second the path of the ecliptic.[3]

Authors before and after Cornford would see Plato's circle of the Same as the celestial equator, as in the works of Bury and Vlastos.[4]

There is precedence for this view in antiquity, for Proclus (c. 460 CE) had given such an interpretation.

> Now surely two circles come into being, and these have come to be in such a way that one is on the inside and the other is on the outside, and they are at an angle to one another. Now one of these is called the circle of the Same and the other is the circle of the Different. The one corresponds to the equator while the other

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[2] Cornford (1937) 72.

[3] Plato, tr. Jowett (1892) 403.

[4] Plato, tr. Bury (1929) 72, n. 1. Vlastos (1975) 33.

> corresponds to the circle of the ecliptic. (*On the Timaeus of Plato,* Book 3, Part II, tr. Baltzly)[5]

Earlier, Calcidius' commentary on Plato's *Timaeus* (c. 320 CE) had expressed similar thoughts.[6] Calcidius' tome, which saw itself as a guide to the heavens,[7] did not discuss the Milky Way.

The missing Milky Way in Calcidius is puzzling because Ptolemy had given a precise description of the Milky Way earlier (c. 160 CE) in his *Almagest* (tr. Toomer).[8]

How might the Milky Way bear any relevance to Plato's cosmology?

## Milky Way

As mentioned, the Milky Way had been described in Ptolemy's *Almagest*, a work that would dominate the astronomical curriculum in antiquity. Yet after the fall of the Roman Empire, Ptolemy's *Almagest* disappeared in Western Europe for half a millennium, until it surfaced again through Arabic sources and finally through Byzantine channels.

Astronomically, the Milky Way is a component of the sphere of the fixed stars and therefore follows the motion of Plato's circle of the Same. Historically and culturally, the Milky Way played a prominent role in the heavens.

In Sophocles' *Philoctetes* (409 BCE), the wounded and long-suffering warrior Philoctetes looks to the heavens for release, to a 'bright circle' in the sky,[9] to a place out of this world.

> Those critics who follow a purely pragmatic method of interpretation have deduced from this passage that… Philoctetes simply wants to go back to his cave. This is not supported by the text. The repeated 'away there, there' is enough to show that the place that he desires to go to is not of this world. (Reinhardt, 1979)[10]

A likely candidate for Sophocles' celestial bright circle is the Milky Circle (*galaxias kyklos*) that would appear prominently in Platonist eschatological exegesis for more than a millennium.

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[5] Proclus, tr. Baltzly (2009) 222.

[6] Calcidius, tr. Magee (2016) 229-231.

[7] Calcidius, tr. Magee (2016) 215.

[8] Ptolemy, tr. Toomer (1984) 400-404.

[9] Sophocles, tr. Francklin (1809) 170.

[10] Reinhardt (1979) 180.

In Cicero's Dream of Scipio (c. 51 BCE), the protagonist meets his ancestors in the Milky Way.

> 'But, Scipio, imitate your grandfather here; imitate me, your father, love justice and duty… Such a life is the road to the skies, to that gathering of those who have completed their earthly lives and been relieved of the body, and who live in yonder place which you now see' (it was the circle of light which blazed most brightly among the other fires), 'and which you on earth, borrowing a Greek term, call the Milky Circle.' (*De Re Publica*, VI, 16, tr. Keyes)[11]

What might have been the source(s) for Cicero's interpretation of the Milky Way as heavenly abode of souls?

One possibility would be Heraclides of Pontus (c. 330 BCE), who reportedly wrote of the Milky Way as celestial abode.[12] In Heraclides' vision of Empedotimus we find, according to Proclus (c. 460 CE), a celestial circle of light.

> Nor is it impossible that a human soul gained the divine truth of the situation in the Underworld and reported it to humans. This is also shown by the account according to Empedotimus, which Heraclides Ponticus narrated. Heraclides says that while Empedotimus was hunting in some place with other people at high noon, he himself was left alone, and after encountering the epiphany of Pluto and of Persephone the light that runs in a circle around the gods shone down upon him, and through it he saw in visions that he personally experienced the whole truth about souls. (ed. Schutrumpf)[13]

What was the interpretation of Heraclides' divine circle of light in antiquity? According to Philoponus (c. 550 CE), that circle of light was the Milky Way.

> Damascius appropriates the hypothesis of Empedotimus concerning the Milky Way, calling it a fact and not a myth. For he says that the Milky Way is the path of souls that travel through the Underworld in the sky. (ed. Schutrumpf)[14]

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[11] Cicero, tr. Keyes (1928) 269.

[12] Gottschalk (1980) 100-103.

[13] Heraclides of Pontus, ed. Schutrumpf (2008) 127.

[14] Heraclides of Pontus, ed. Schutrumpf (2008) 125.

Where might Heraclides of Pontus have found this interpretation of the Milky Way as heavenly abode? As a scholar at Plato's Academy, Heraclides must have heard lectures from Plato himself, lectures that, given Plato's writings, likely discussed eschatological matters.

Cicero translated the cosmological portion of Plato's *Timaeus* centuries before Calcidius did. And Cicero found cosmological import not only in *Timaeus*, but in Plato's *Republic* as well.

In *Republic*, Plato caps his discussion of an ideal state with the afterlife Vision of Er, a soteriological myth that complements the cosmological myth in *Timaeus*. Cicero follows this pattern with his *De Re Publica* (c. 51 BCE), whose discussion of the Roman Republic is capped by the Dream of Scipio, a Romanized version of Plato's Greek afterlife vision.

In *Republic*'s Vision of Er (c. 370 BCE), Plato writes about the journey of departed souls to a celestial light that girdles the heavens.

> '…they discerned, extended from above throughout the heaven and the earth, a straight light like a pillar, most nearly resembling the rainbow, but brighter and purer… this light was the girdle of the heavens… holding together… the entire revolving vault.' (*Republic*, 616b-c, tr. Shorey)[15]

Plato's light resembles the arc of a rainbow and it circles the heavens, just like Heraclides' light that runs in a circle and the circle of light that was labeled the Milky Circle by Cicero.

Around 400 CE, Macrobius wrote a commentary on Cicero's Dream of Scipio and, right from the start, Macrobius compared Cicero's Dream of Scipio to Plato's Vision of Er.

> In our reading of Plato's *Republic* and Cicero's *Republic*… we noted this… imitation has produced a striking similarity, namely, that whereas Plato, at the conclusion of his work, has a man who apparently had died and was restored to life reveal the conditions of souls liberated from their bodies, introducing as well an interesting description of the spheres and constellations, the Scipio of Cicero's work treats of the same subjects, but as revelations which came to him in a dream. (tr. Stahl)[16]

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[15] Plato, tr. Shorey (1935) 501.

[16] Macrobius, tr. Stahl (1952) 81.

Macrobius sees Cicero's work as an imitation of Plato's work and he states that they treat of the same subjects, which include the afterlife of souls in the celestial regions. Therefore, in Macrobius' mind, Cicero's Milky Circle, where Scipio meets his virtuous ancestors, must refer to Plato's arch of light that girdles the heavens, the destination of the afterlife journey of just souls.

Macrobius not only sees souls returning to the Milky Way. He also points out that souls originally descend from the Milky Way to this earthly life, a belief he ascribes to Pythagoras (c. 500 BCE). At the intersections of the Milky Way and the Zodiac (path of the Planets), Macrobius locates the gates of the heavenly abode.

> At this point we shall discuss the order of the steps by which the soul descends from the sky to the infernal regions of this life. The Milky Way girdles the zodiac, its great circle meeting it obliquely… Souls are believed to pass through these portals [at the intersections] when going from the sky to the earth and returning from the earth to the sky… This is what Homer with his divine intelligence signifies in his description of the cave at Ithaca. Pythagoras also thinks that the infernal regions of Dis [Hades] begin with the Milky Way, and extend downwards, because souls falling away from it seem to have withdrawn from the heavens. He says that the reason why milk is the first nourishment offered to the newborn is that the first movement of souls slipping into earthly bodies is from the Milky Way. Now you see, too, why Scipio, when the Milky Way had been shown to him, was told that the souls of the blessed proceed from here and return hither. (tr. Stahl)[17]

Macrobius ties Cicero's Dream of Scipio to Plato's Vision of Er, and his *Commentary on the Dream of Scipio* forges a chain that reaches back from Macrobius (c. 400 CE) to Cicero (c. 50 BCE) to Plato (c. 370 BCE), a period of around 700 years.

The *Commentary on the Dream of Scipio* survived for more than a thousand years in Western Europe, with illustrations depicting Scipio dreaming about his encounter with his father and grandfather in the Milky Way (Fig. 1: Somnium Scipionis, MS Typ 7 (1469), Houghton Library, Harvard).

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[17] Macrobius, tr. Stahl (1952) 133.


Figure 1. Illustration for Macrobius' *Commentary on the Dream of Scipio*, showing the intersecting circles of the paths of the Planets (ecliptic) and the Milky Way where Scipio meets his virtuous ancestors (Somnium Scipionis, MS Typ 7 (1469), Houghton Library, Harvard)

Combining these two periods of time, from Macrobius back to Heraclides of Pontus and Plato (around 700 years) and from Macrobius forward to the 1400's (around 1000 years), we have a stretch of time of around 1700 years when, in literary sources, the Milky Way appeared as heavenly abode.

And according to Macrobius, the Milky Way tradition went back not only to Plato, but to Pythagoras (c. 500 BCE), and even to Homer (c. 700 BCE).

## Visible Celestial X: Embodiment of Plato's World Soul

We have seen two differing explanations of Plato's cosmos as defined by *Timaeus*' two intersecting celestial circles. One interpretation advocates the celestial equator as the circle of the Same, while the other sees the Milky Way as the circle that intersects the circle of the Different, the path of the Planets.

Who could we turn to for an informed arbitration on this matter? It would seem that Plato himself provides information relevant for such a determination.

In *Timaeus*, the Demiurge tilts two strips of cosmic substance into an X, and then connects the extremities to fashion two intersecting circles (36c). With this shape, the Demiurge creates the Cosmic Soul, the World Soul (36e). This Anima Mundi, being a soul, is invisible. And so, the Demiurge created a material body that would resemble the Cosmic Soul as much as possible.

> 'In this wise and for these reasons were generated all those stars which turn themselves about as they travel through Heaven, to the end that this Universe might be as similar as possible to the perfect and intelligible Living Creature in respect of its imitation of the Eternal Nature thereof.' (*Timaeus*, 39d, tr. Bury)[18]

The Cosmic Body, which is as similar as possible to the Cosmic Soul, is composed of celestial bodies: the fixed stars and the Wanderers. One circle of this material Cosmic Body is the ecliptic, the path of the Planets, the circle of the Different as related by Plato himself (38c-d). As a qualifier for the other circle, that which intersects the circle of the Different, Plato leaves instructions at the very end of his cosmological work.

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[18] Plato, tr. Bury (1929) 83.

> 'And now at length we may say that our discourse concerning the Universe has reached its termination. For this our Cosmos has received the living creatures both mortal and immortal and been thereby fulfilled: it being itself a visible Living Creature embracing the visible creatures, a perceptible God made in the image of the Intelligible, most great and good and fair and perfect in its generation – even this one Heaven [*Ouranos*] sole of its kind.' (*Timaeus*, 92c, tr. Bury)[19]

Plato gives both an invisible (intelligible) Living Creature and a visible (material) Living Creature composed of heavenly bodies, linking them together, cosmic Soul to cosmic Body.

## Conclusions

Created as similar as possible to Plato's invisible model, the visible Cosmos should conform to two heavenly circles that intersect in the shape of the letter X. Since the celestial equator is a geometric projection of the terrestrial equator into the heavens, it is not composed of celestial bodies, which Plato had specified for the components of his Cosmos.

With his final words in *Timaeus*, as to a visible, perceptible cosmic god, Plato contradicts the Cornford (et al.) interpretation of Plato's cosmology that consists of the ecliptic and the celestial equator.

Since the celestial equator is invisible, it does not qualify as a component of Plato's visible Cosmos.

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